



(19)

(11) Publication number: **01047381 A**

Generated Document.

**PATENT ABSTRACTS OF JAPAN**(21) Application number: **62204183**(51) Intl. Cl.: **C12N 15/00 C07H 21/04**(22) Application date: **19.08.87**

(30) Priority:

(43) Date of application  
publication: **21.02.89**(84) Designated contracting  
states:(71) Applicant: **BITAMIN KENKYUSHO:KK**(72) Inventor: **YAGI KUNIO  
KOJIMA NAKAO  
HAGA NOBUYUKI**

(74) Representative:

**(54) PREPARATION OF  
LIPOSOME CONTAINING  
SEALED GENE**

(57) Abstract:

**PURPOSE:** To enable removal of microbial cells with a 0.45 $\mu$ m filter, by adding a polyhydric alcohol at a latter stage of a gene-inclusion process using a reverse- phase evaporation method, thereby efficiently including a DNA in a liposome having a diameter of  $\leq$ 450nm.

**CONSTITUTION:** In the production of a gene-including liposome by a reverse- phase evaporation method, a polyhydric alcohol such as glycerol or ethylene glycol is added at the latter stage of the gene-inclusion process. The liposome suspension obtained by the above process is treated with a Nuclepore filter having an average pore size of 400nm to obtain liposomes composed mainly of those having diameter of 100W400nm. The gene to be included by this process may be a DNA or a recombinant DNA.

**COPYRIGHT: (C)1989,JPO&Japio**